

# Syllabus for Summer 2017 MATH 1540 Section 51769

## Cuyahoga Community College Business, Technology & Mathematics Eastern Campus

Course: MATH 1540 Trigonometry

Instructor: Mike McCraith

Lecture Hours: 03 hours Laboratory Hours: 00 hours

Office: EMHC 210 Office Phone: 216-987-2320

Office Hours: TTH 9:20 - 11:00 am, 1:40 - 2:00 pm

Online Hours: By Appointment (using Skype)

Email: mike.mccraith@tri-c.edu

Website: <http://www.mathaccordingtomike.com>

Text: Precalculus 5<sup>th</sup> Ed., Beecher, Penna, Bittinger

Graphing calculator is required - TI-83 or above is recommended

### Prerequisites

Math 1521/1530 or placement exam.

### Course Description

Topics include trigonometric functions and their values for all angles, vectors and oblique triangles, graphs of trigonometric functions, trigonometric identities and equations. Applications and activities to build skills in problem solving included.

### Class Schedule

To be successful in the class, you must be determined and able to stay on task. Skim the section, watch the corresponding YouTube videos, skim the section again, and then try the homework. Do one section at a time! When all homework sections are complete, try the quiz. If there's time between when you finish the quiz and the test due date, print out the practice test (see Extra Information) and compare your work to the answer key. **Do not wait until the last minute to start the material.** Info on which YouTube video to watch is posted on Blackboard.

### Attendance and Participation

As if this were a traditional class, you need to have the self-discipline to work on math every day to increase your chance of success. Since there is no actual seat time, "attendance" will not be used. Try to do some work for this class every day. Even if you only have 20 minutes, it is better than not spending any time at all.

### Homework and Quizzes

Homework is posted on MyMathLab: <http://www.mymathlab.com>. The Course ID is **mccraith96455**. I highly recommend printing out the homework, selecting "Save", doing the problems on paper, and then logging back in to submit answers. Homework is graded without partial credit. Each section is worth 5 points.

Quizzes are also posted on the MyMathLab site. Quizzes cover the entire chapter, are worth 20 points, and you have only 3 hours to complete the quiz with 1 attempt. Make sure you stay organized as you do your homework and quizzes to ensure full credit is received.

### Grade Replacement Policy

If all homework assignments are turned in on time and score of 70% or higher is received on all homework assignments, then the lowest test score is **replaced** by the Final if the Final is higher. Otherwise, all scores are kept. Ensure that every homework assignment is at least 70% prior to the due date. If, for any reason, at least one section is below 70%, the Policy is lost and cannot be regained.

### Partial Credit Policy

While grading tests, partial credit will be given based on the amount of work shown and how correct the work is. For example, a student who gets their answer straight from the calculator without showing any work will receive very few points—even if the answer is correct. Whereas a student who does the correct work but somehow arrives at an incorrect answer will receive the majority of the credit. Arithmetic mistakes warrant only a few points lost; however, conceptual errors will not earn many points of partial credit. I understand that there are times where you must use the calculator to get the answer, and thus in those cases, the policy does not apply.

### Tests

Tests will cover one chapter each. A 200-point Final will be given on the last day of class. Tests may consist of homework-style problems, true/false, and short answer. **The test must be done in pencil. A test not done in pencil or one that is done in poor handwriting will not be graded. All steps must be shown on the test or full credit will not be given (in Math, *how you get the answer is sometimes more important than the actual answer.*)**

Tests will be available to you in the testing center that you declared and will be able to be taken from Thursday to Monday of that testing week (see the last page). **If you choose to switch to a different Tri-C campus to take your test, I must be informed first to ensure there is a test ready for you.** It is *highly* recommended that you view the previous tests using the Web site. On the Website, click on "Classes" and then on "Math 1540". Take those tests and use the answer keys to check your work.

### Make-ups/Late Material

There will be no make-up exams offered. No late assignments will be accepted **for any reason**. Be sure to have all materials on the day and by the time that they are required. Materials turned in after the due date will not be graded. **Extra time will NOT be given for any reason.**

### Cheating Policy

Cheating will not be tolerated by the instructor. It includes having any extra materials not approved by the instructor. Cheating also includes having these materials in your possession—whether or not you are using them. For instance, if you borrow a calculator, you are obligated to make sure there are no formulas in the calculator. Make sure to use common sense while test taking. Do not, for any reason, look over at another student. Otherwise, you will be considered to be cheating.

Misuse of external resources (including, but not limited to, the back of the book, other textbooks, another student's work, the internet, and the solution manual) by submitting work that is not their own also constitutes cheating. For example, if a student copies the answers from the back of the book and turns that in as their homework, it is considered cheating. **If you do not understand how to get the answer, do not simply copy down the work from an external source.** Instead, ask me to help you with the problem. Copying down from an external source does not demonstrate mastery of the material and will not help you on the exam and on the final. I would rather you leave a problem blank than write the copied answer from an external source. It is your responsibility to make sure you have all of your questions answered **before** the assignment is due.

Never give me or the testing center the impression that you are cheating. Never look over at other student's work and never talk during the quiz or test **for any reason**.

On the first instance of cheating, the grade received for that **entire** assignment/exam will be a zero, the student will no longer qualify for the Grade Replacement Policy, and the student's overall grade will be dropped by one letter. For the second instance of cheating, automatic failure in the course will result and a Student Conduct Hearing will take place. See the Student Handbook for a complete definition of cheating and other information.

### Instructor's Expectations

Please be courteous to all members of the class. Math is a difficult subject for most people, so I strongly encourage you to ask any questions you may have (without having to worry.)

**Follow the guidelines (see below) to start every week prepared.** Be sure homework is done in a timely manner and that you adequately schedule your time to include homework and studying. Studying only a "couple hours" for a test is never enough. Be sure to start to study for a test at least 2 days before the test. That way, you leave enough time for the material to be understood and to ask any questions. Do not wait until the last minute to get the help you might need! If you do not ask questions when you have them, then you are shorting yourself of an opportunity to learn the material. I will answer all questions in a respectful, patient, and timely manner.

When corresponding through email, refrain from using "internet speak". Any such email will be returned.

### Grading

Grades will be based on the following:

About Me	10
Quizzes	60
Homework	170
3 Tests	300
Final	200
<b>TOTAL</b>	<b>780</b>

Final grades are based on:

Percent	Points	Final Grade
90 - 100	702 - 780	A
80 - 89	624 - 701	B
70 - 79	546 - 623	C
60 - 69	468 - 545	D
0 - 59	Below 468	F

### College Calendar

Date	Calendar Description
June 12, 2017	Session L (8 Weeks) Begins
June 26, 2017	Last Day to Withdraw from Session L (8 Weeks) with NO RECORD
July 4, 2017	Independence Day (NO CLASS)
July 23, 2017	Last Day to Withdraw from Session L (8 Weeks) Course with a "W" Grade
August 6, 2017	Summer Session Full Term, Session K (Second 5 Weeks) and Session L (8 Weeks) End
August 8, 2017	Final Grades Due: Full Term, Session K (Second 5 Weeks) and Session L (8 Weeks)
August 10, 2017	Grades (Full Term, Session K and Session L) available to students

### Assistance

Tutoring is available in the Learning Center (ESS 1202) on a free, walk-in basis. Free online tutoring is available with a link under Student Services in My Tri-C Space through eTutoring and Smarthinking.

## Incomplete Grades

The grade “I” is only given if a student meets **both** of the following conditions:

- The student has a **passing status** in the class and has completed at least 70% of the course work, AND
- The student is unable to complete the rest of the required course work due to circumstances *judged by me* to be beyond his/her control.

A notation of “I” indicates that you must complete the course requirements within five (5) weeks of the next semester (summer excluded) or the “I” will be automatically changed to an “F”. See Student Handbook for more information.

## Extra Information

Office hours! Use them to your advantage. Let no question go unasked. **Be sure to have your questions prepared in advance to maximize efficiency during office hours.** There is not time to redo the lecture during office hours so come prepared to ensure all students are given a chance for help.

I am also available for online tutoring using Skype. Use my Tri-C email address to find me on Skype. **If you wish to meet with me, please give me advance notice by emailing me at my Tri-C address.** I do not log on unless I know someone is there.

I have also made videos for this course. On the website, click on “Videos” and select your course. You can also access the videos on YouTube by doing a search for “Math 1540 Trigonometry” and clicking on the playlist.

### Things you ABSOLUTELY NEED TO KNOW from Math 1521/1530 (College Algebra)

- Represent functions verbally, numerically, graphically and algebraically.
- Solve Equations.
- Solve Inequalities.
- Define, Determine, and Graph Conic Sections and solve Non-linear Systems of Equations and Inequalities.
- Solve systems of linear equations using matrices.
- Recognize and differentiate arithmetic and geometric sequences and series, and determine specified terms and their sums if they exist.

### Objectives for this course

Upon successful completion of MATH-1540 Trigonometry, the student should be able to:

- Define and evaluate trigonometric functions.
- Solve right triangles using trigonometric functions.
- Define radian measure and convert to and from degree measure of angles.
- Solve application problems that include the use of right triangles, and/or radians.
- Solve oblique triangles using the law of Sines or law of Cosine.
- Solve application problems involving vectors.
- Sketch the graphs of the trigonometric functions and state their domain and range.
- State and prove fundamental trigonometric identities.
- Define inverse trigonometric functions and use to solve conditional equations.
- Solve trigonometric equations.
- Express a complex number in algebraic, polar exponential and graphical form.
- Perform operations with complex numbers.
- Use the calculator/computer as appropriate.

## Due Dates

Step 1: Get a daily planner

Step 2: Write these dates in the planner

Step 3: Become organized

The first date is when the assignment is available. The second date is when it is due.

## Homework Assignments and Quizzes Due Dates

Chapter 6: Monday, June 12 - Monday, July 3

Chapter 7: Monday, June 26 - Monday, July 17

Chapter 8: Monday, July 10 - Monday, July 31

All items (homework and quizzes) are due at 11:59 pm of the second date listed.

No exceptions for any reason.

## Testing Periods

Chapter 6: Thursday, June 29 - Monday, July 3

Chapter 7: Thursday, July 13 - Monday, July 17

Chapter 8: Thursday, July 27 - Monday, July 31

Final: Thursday, July 27 - Wednesday, August 2

The Course ID is [mccraith96455](#).

# Math 1540 Schedule:

Week of (Mondays)	Sections Covered
June 12	6.1 Trigonometric Functions of Acute Angles 6.2 Applications of Right Triangles 6.3 Trigonometric Functions of Any Angle
June 19	6.4 Radians, Arc Length, and Angular Speed 6.5 Circular functions 6.6 Graphs of Transformed Sine and Cosine Functions
June 26	<b>Test 1: 6.1 - 6.6 Available June 29<sup>th</sup></b> 7.1 Identities: Pythagorean and Sum/Difference 7.2 Identities: Co-function Double Angle 7.3 Proving Trig Identities
July 3	7.4 Inverse of Trig Functions 7.5 Solving Trig Equations
July 10	<b>Test 2: 7.1 - 7.5 Available July 13<sup>th</sup></b> 8.1 Law of Sines 8.2 Law of Cosines
July 17	8.3 Complex Numbers 8.4 Polar Coordinates
July 24	8.5 Vectors 8.6 Vector Operations <b>Test 3: 8.1 - 8.6 Available July 27<sup>th</sup></b> <b>Final Available July 27<sup>th</sup></b>
July 31	Prep for final! Your tests become review sheets for the Final. The Final will have either the exact same question from the tests you took or I just change the values.
August 2	<b>Last Day to Take the Final. NO EXCEPTIONS</b>